TOWN CENTER COMMUNITY PARK, PHASE II
-PRE-FABRICATED PEDESTRIAN BRIDGES-

GENERAL NOTES:

1. PEDESTRIAN BRIDGES 124'-6" x 8'-0" AND 153'-6" x 8'-0" WHICH ARE TO BE INSTALLED AS PART OF THE TOWN CENTER COMMUNITY PARK, PHASE II PROJECT, CIP 2006-33 ARE REFERENCED IN THE NOTES AND REQUIREMENTS SET FOR ON THIS SHEET.
2. BOTH PRE-FABRICATED PEDESTRIAN BRIDGES, JOB NO'S 81174A, AND 81174B ARE DESIGNED BY CONTECH BRIDGE SOLUTIONS, INC, ALEXANDRIA, MN.
3. FOUNDATION AND ABUTMENT DESIGNS FOR BOTH PRE-FABRICATED PEDESTRIANS ARE DESIGNED BY R2H ENGINEERING, INC, SAN DIEGO, CA.
4. ALL FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE TO THE RECOMENDATIONS SET FORTH BY THE PROJECTS SOILS REPORT PREPARED BY TERA COSTA CONSULTING GROUP, INC, SAN DIEGO, CA.

SPECIAL INSPECTION REQUIREMENTS:

1. THE PRE-FABRICATED BRIDGE SUPERSTRUCTURE IS TO BE FABRICATED AT THE CONTECH BRIDGE SOLUTION, INC., AISC CERTIFIED STEEL SHOP IN ACCORDANCE WITH SECTION 1704.3 AND TABLE 1704.3. SPECIAL INSPECTION FOR THE BRIDGE SUPERSTRUCTURES, PER CBC SECTION 1705.2, SHALL BE AS FOLLOWS:
   - A. INSTALLATION OF ALL CHORD, DIAGONAL AND BRACE DIAGONAL SPLICE BOLTS SHALL BE SUBJECT TO CONTINUOUS SPECIAL INSPECTION.
   - B. SPECIAL INSPECTION SHALL BE IN ACCORDANCE WITH CBC SECTION 1704.3.3 FOR BOLTS INSTALLED WITH THE "TURN-OF-THE-NUT" PROCEDURE AND ARE PROVIDED BY CONTECH BRIDGE SOLUTIONS SPLICING INSTRUCTION.
   - C. CONTINUOUS MONITORING OF THE TIGHTENING PROCESS IS REQUIRED FOR ALL BOLTING INSTALLATIONS.
2. SPECIAL INSPECTION FOR THE BRIDGE FOUNDATION / ABUTMENT SHALL CONFORM TO THE REQUIREMENTS SET FORTH ON STRUCTURAL DRAWINGS S-1, S-4, AND S-5.

DISABLED ACCESS NOTES:

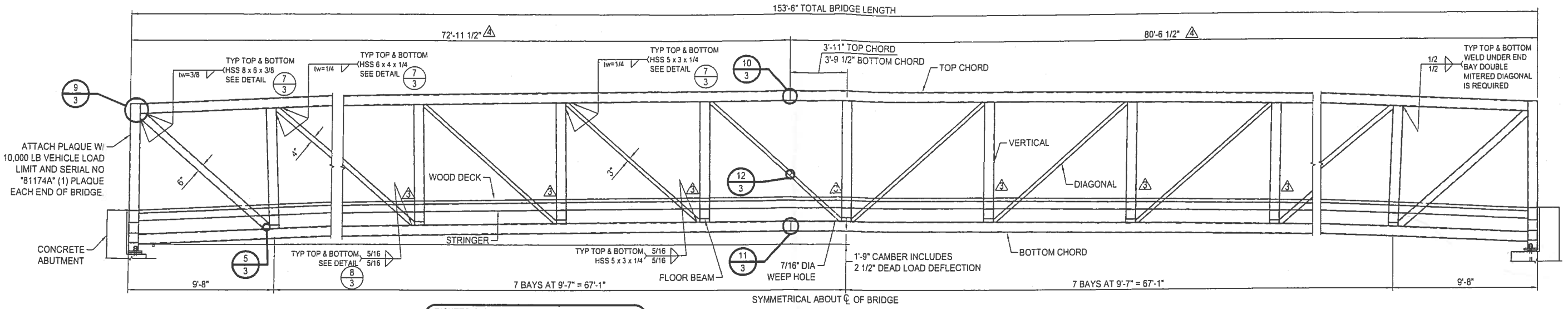
EAST AND WEST PEDESTRIAN BRIDGES, 124'-6" x 8'-0" AND 153'-6" x 8'-0" CONFORM TO SECTIONS 1128B AND 1133 OF THE 2007 CALIFORNIA BUILDING CODE.

1. GRADES ON PEDESTRIAN BRIDGES AND APPROACHES TO BRIDGES COMPLY WITH CBC SECTION 1128B, IN WHICH CROSS SLOPES OF WALKING SURFACES DO NOT EXCEED 2%. SEE BRIDGE CROSS SECTION ON SHEET 1 OF THE EAST & WEST PEDESTRIAN BRIDGES RESPECTIVELY.
2. THE 153'- 6" x 8'-0" WEST BRIDGE HAS A 1'- 4.5" CAMBER IN WHICH THE TRAVELED WALKWAY SLOPE IS 2.3% CONFORMING TO CBC SECTION 1128B. THE 124'- 6" EAST BRIDGE HAS A 1'- 9" CAMBER IN WHICH THE TRAVELED WALKWAY SLOPE IS 2.8% CONFORMING TO CBC SECTION 1128B. SEE SHEETS 1 0F 4 OF EAST AND WEST BRIDGE DRAWINGS RESPECIVELY FOR BRIDGE CAMBER.
3. SIDEWALK APPROACHES TO PEDESTRIAN BRIDGES DO NOT EXCEED 5.0%.

REGISTERED PROFESSIONAL ENGINEER
CARL E. SCHMITZ
No. 60112
Exp. 6/30/2010
CIVIL
STATE OF CALIFORNIA

THIS PROJECT SHALL COMPLY WITH THE 2007 CALIFORNIA BUILDING CODE, WHICH ADOPTS THE 2006 IBC.

REFERENCES	PLANS ACCEPTED BY:	CITY OF SANTEE	DEPARTMENT OF DEVELOPMENT SERVICES	PROJECT NO.
R2H STRUCTURAL DRAWINGS S-1, S-4, S-5 CONTECH BRIDGE SOLUTIONS, INC DRAWINGS NO. 1-4. JOBS 81174A & 81174B	DATE: 2/19/09 R.C.E. 60112 EXP. DATE: 6/30/2010	COVER SHEET FOR:	TOWN CENTER COMMUNITY PARK, PHASE II PRE-FABRICATED PEDESTRIAN BRIDGES	CIP 2006-33



BRIDGE ELEVATION

PICKETS, PICKET RAIL AND TOE PLATE ARE NOT SHOWN IN ELEVATION SEE BRIDGE SECTION AND PICKET LAYOUT ON SHEET 4, FOR CORRECT LOCATIONS.

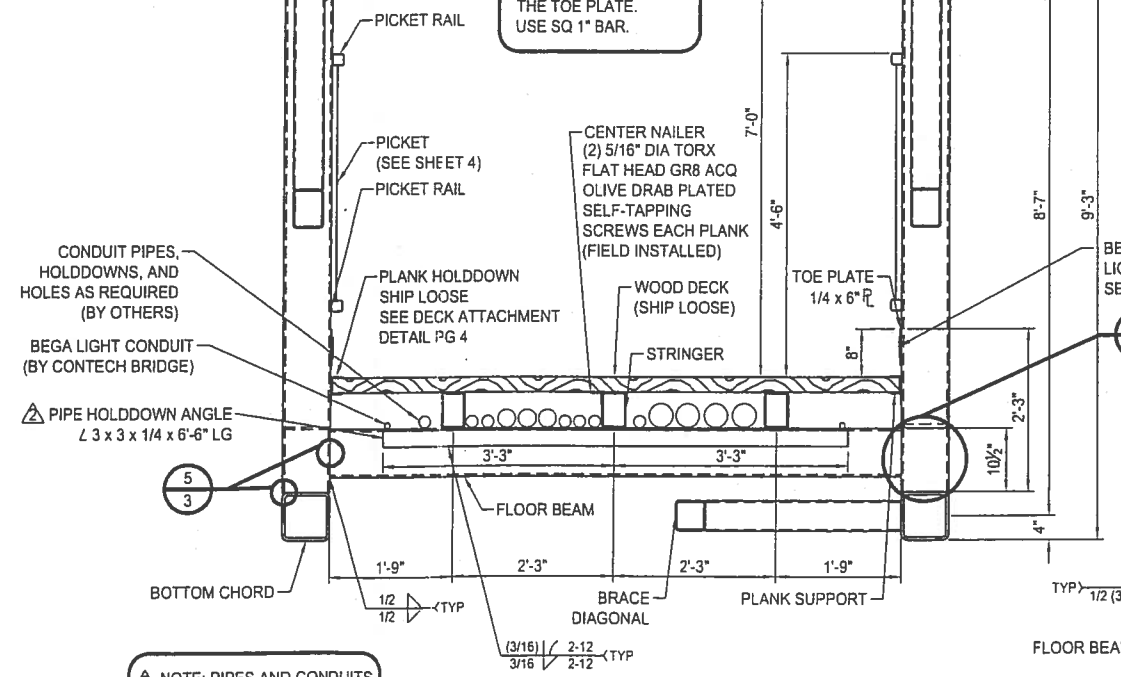
SHOP NOTE: EXTEND STRINGERS ON 72'-11 1/2" SECTION TO MAKE IT LONGER.

⚠ SHOP NOTE: SPLICES ARE NOT LOCATED IN MIDPOINT OF BAYS.

SPACING OF TOE PLATE AND PICKETS PRODUCES OPENINGS OF LESS THAN 4" UP TO A HEIGHT OF 54".

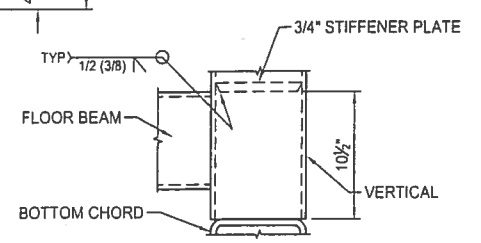
GENERAL NOTES

1. DESIGN STRESSES ARE IN ACCORDANCE WITH THE CALTRANS BRIDGE DESIGN SPECIFICATIONS MANUAL.
2. BRIDGE MEMBERS ARE FABRICATED FROM HIGH STRENGTH, LOW ALLOY, ENHANCED ATMOSPHERIC CORROSION RESISTANT ASTM A847 COLD-FORMED WELDED SQUARE AND RECTANGULAR TUBING, AND ASTM A588, ASTM A606, OR ASTM A242 PLATE AND STRUCTURAL SHAPES (Fy=50,000 PSI).
3. BRIDGE DECKING NOMINAL 3-INCH THICK SELECT STRUCTURAL FIR (Fb=1,400 PSI min.). TIMBER DECK MATERIAL SHALL BE TREATED WITH ALKALINE COPPER QUANTENARY (ACQ) TO A 0.4 PCF RETENTION OR TO REFUSAL. SHIP LOOSE AND FIELD INSTALL.
4. THE GAS METAL ARC WELDING PROCESS OR FLUX CORED ARC WELDING PROCESS WILL BE USED.
5. ALL TOP AND BOTTOM CHORD SHOP SPLICES TO BE COMPLETE PENETRATION TYPE WELDS. WELD BETWEEN TOP CHORD AND END VERTICAL SHALL BE AS DETAILED.
6. UNLESS OTHERWISE NOTED, WELDED CONNECTIONS SHALL BE FILLET WELDS (OR HAVE THE EFFECTIVE THROAT OF A FILLET WELD) OF A SIZE EQUAL TO THE THICKNESS OF THE LIGHTEST GAGE MEMBER IN THE CONNECTION. WELDS SHALL BE APPLIED AS FOLLOWS:
   - A. BOTH ENDS OF VERTICALS (EXCEPT AS NOTED), DIAGONALS, AND FLOOR BEAMS SHALL BE WELDED ALL AROUND.
   - B. BRACE DIAGONALS WILL BE WELDED ALL AROUND.
   - C. BOTTOM OF STRINGERS WILL BE STITCH WELDED TO TOP OF FLOOR BEAMS.
   - D. MISCELLANEOUS NON-STRUCTURAL MEMBERS WILL BE STITCH WELDED TO THEIR SUPPORTING MEMBERS.
7. BRIDGE DESIGN WAS ONLY BASED ON COMBINATIONS OF THE FOLLOWING LOADS WHICH WILL PRODUCE MAXIMUM CRITICAL MEMBER STRESSES.
   - A. 85 PSF UNIFORM LIVE LOADING ON THE FULL DECK AREA OR ONE 10,000 POUND VEHICLE LOAD. THE VEHICLE LOAD SHALL BE DISTRIBUTED AS A FOUR-WHEEL VEHICLE WITH 80% OF THE LOAD ON THE REAR WHEELS. THE WHEEL TRACK WIDTH OF THE VEHICLE SHALL BE 5'-6" AND THE WHEEL BASE SHALL BE 10'-0". THE VEHICLE SHALL BE POSITIONED SO AS TO PRODUCE THE MAXIMUM STRESS IN EACH MEMBER, INCLUDING DECKING.
   - B. 35 PSF WIND LOAD ON THE FULL HEIGHT OF THE BRIDGE, AS IF ENCLOSED.
   - C. 20 PSF UPWARD FORCE APPLIED AT THE WINDWARD QUARTER POINT OF THE TRANSVERSE BRIDGE WIDTH.
   - D. SEISMIC LOADS PER CALTRANS (SEE NOTE SHEET 2).
   - E. 144 PLF FOR PIPE AND CONDUIT LOAD.
8. CLEANING: ALL EXPOSED SURFACES OF STEEL SHALL BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACES PREPARATION SPECIFICATIONS NO. 7 BRUSH-OFF BLAST CLEANING. SSPC-SP7-LATEST EDITION.



⚠ NOTE: PIPES AND CONDUITS SHALL BE ATTACHED SO AS TO ALLOW DIFFERENTIAL THERMAL MOVEMENT BETWEEN PIPES, CONDUITS AND THE BRIDGE.

BRIDGE SECTION



STIFFENER DETAIL

⚠ TYP. 7 CENTER VERTICALS ONLY (14) TOTAL

SCHEDULE OF MEMBERS	
TOP CHORD	HSS 8 x 8 x 1/2
BOTTOM CHORD	HSS 8 x 8 x 1/2
END VERTICAL	HSS 8 x 8 x 1/2
VERTICAL	HSS 8 x 8 x 3/8
DIAGONAL	HSS 5 x 3 x 1/4 ⚠
BRACE DIAGONAL	HSS 5 x 5 x 1/4
FLOOR BEAM	HSS 8 x 8 x 3/8
END STRUT	HSS 8 x 8 x 3/8
STRINGER	HSS 6 x 4 x 1/4
END FLOOR BEAM	HSS 10 x 8 x 3/8
CENTER NAILER	∠2 x 2 x 3/16
PLANK SUPPORT	∠3 x 3 x 1/4
PLANK HOLDDOWN	∠2 X 2 X 3/16
PICKETS	∠1 1/4 x 1 1/4 x 1/8
PICKET RAIL	HSS 2 x 2 x 3/16

⚠ USE HSS 8 x 6 x 3/8 END BAY ONLY, USE HSS 6 x 4 x 1/4 2ND THROUGH 5TH BAYS. DOUBLE MITER ALL DIAGONALS

REGISTERED PROFESSIONAL ENGINEER STEVEN J. HERTH No. C040130 Exp. 6-30-10 CIVIL STATE OF CALIFORNIA
11/13/08

Level	Date	Description	By

REVISIONS

QUALITY MAJOR BRIDGES AISC CERTIFICATION

Company: CONTECH BRIDGE SOLUTIONS INC.
8301 State Highway 29 N Alexandria, Minnesota 56308
800-328-2047 320-852-7500 320-852-7067 FAX

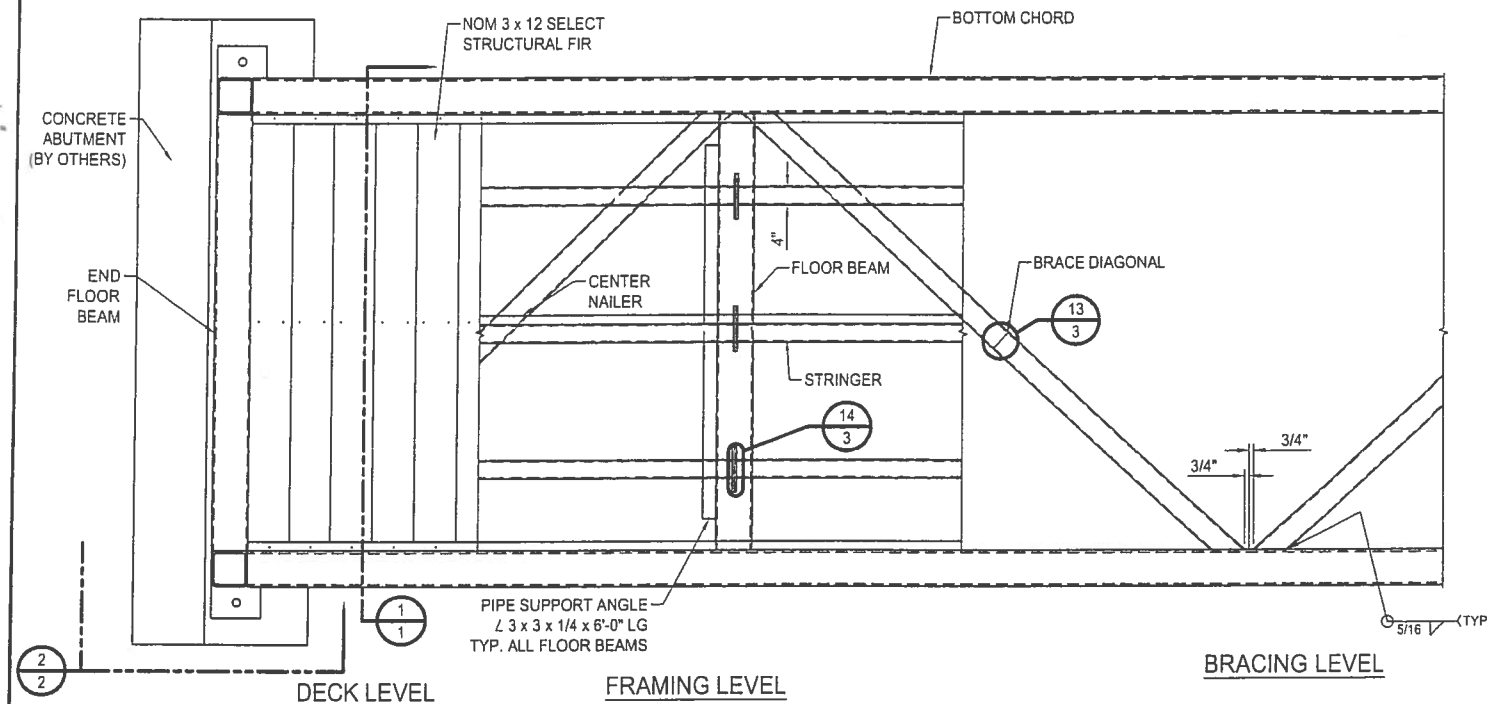
CONTECH Product: CONTINENTAL BRIDGE

153'-6" x 8'-0"
TOWN CENTER COMMUNITY PARK PHASE II
PEDESTRIAN BRIDGE
SANTEE, CA

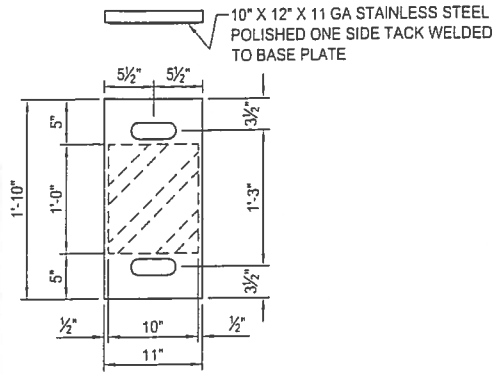
Project Status.

Designed	Drawn	Date Drawn
SJH	CMA	11/4/08
Checked	Approved	Job No
SJH	SJH	81174A

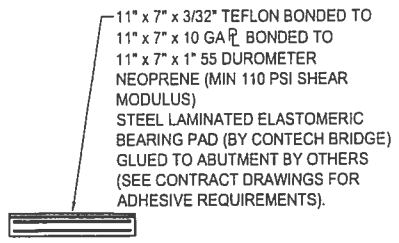
Sheet No. 1 of 4



BRIDGE PLAN VIEW

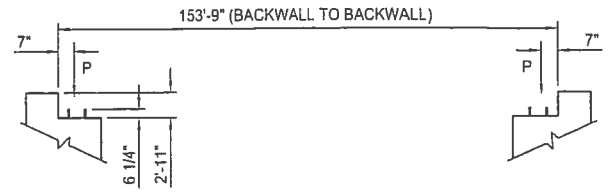


EXP BASE PLATE DETAIL



BEARING PAD DETAIL

CONTRACTOR/OWNER NOTE: ANCHOR BOLT LOCATIONS AND STEP HEIGHT VARY FROM CONTRACT DRAWINGS. PLEASE VERIFY
ALSO VERIFY LOCATIONS OF UTILITIES CUT-OUT: 8" CLEARANCE EXISTS BETWEEN TOP OF STRUT (AT BOTTOM OF CUT-OUT) AND BOTTOM OF END FLOOR BEAM.



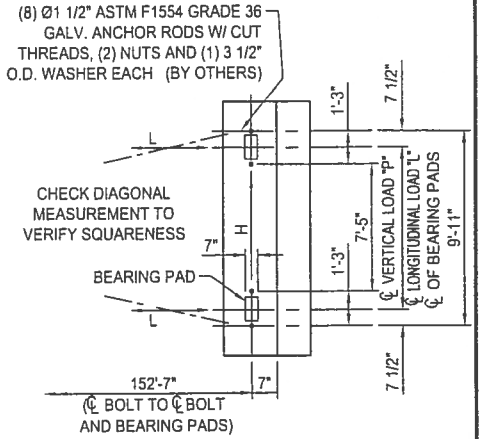
ANCHOR BOLT ELEVATION

COMBINE REACTIONS AS PER LOCAL OR GOVERNING BUILDING CODES AS REQUIRED

BRIDGE REACTIONS		+ DOWNWARD LOAD - UPWARD LOAD		
		P (LBS)	H (LBS)	L (LBS)
DEAD LOAD		28,000		
UNIFORM LIVE LOAD		26,095		
VEHICLE LOAD		5,000		
WIND UPLIFT 20 PSF	WINDWARD	-10745		
	LEEWARD	-3582		
WIND		±19,700	24,850	
THERMAL				4,200
SEISMIC		SEE NOTE		

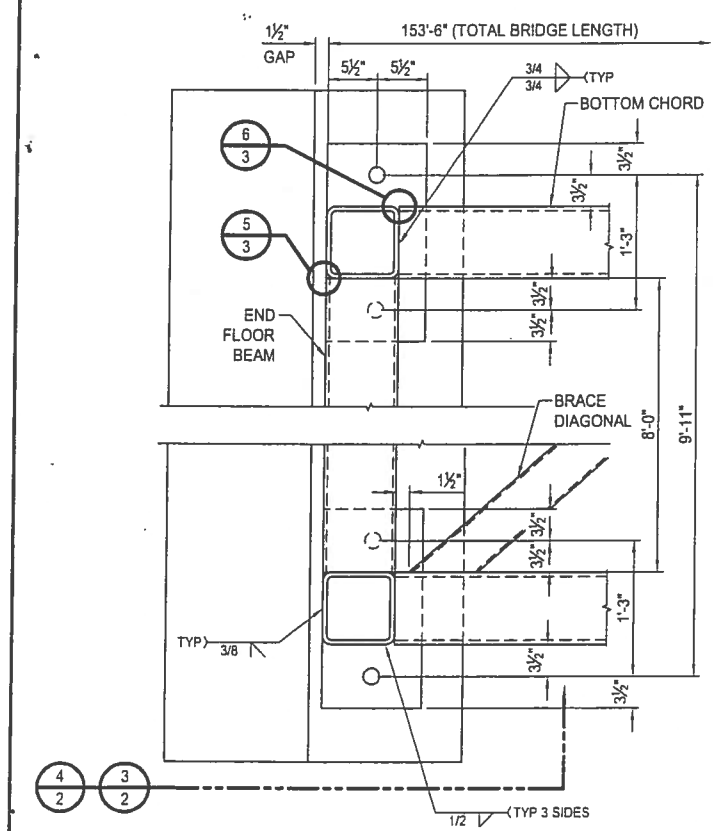
"P" - VERTICAL LOAD EACH BASE PLATE (4 PER BRIDGE)
"H" - HORIZONTAL LOAD EACH FOOTING (2 PER BRIDGE)
"L" - LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE)

BRIDGE LIFTING WEIGHT: 112,000 LBS
(INCLUDES WEIGHT OF PIPES AND CONDUITS)

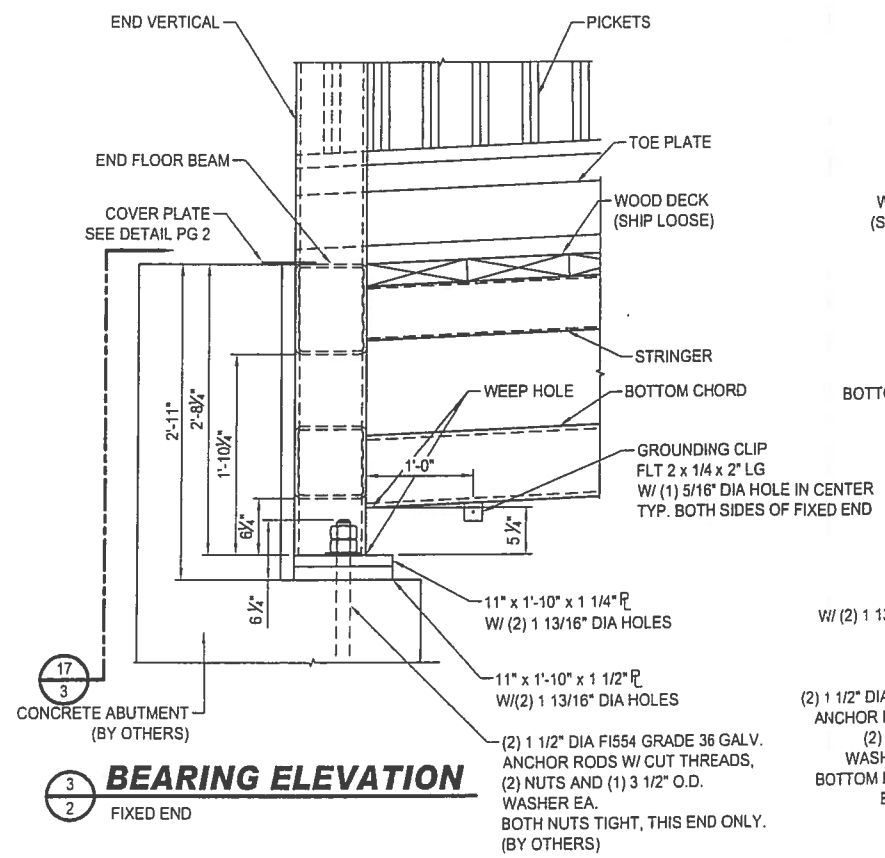


PLAN

NOTE: THIS BRIDGE HAS BEEN DESIGNED FOR SEISMIC FORCES BASED ON CALTRANS CRITERIA WITH A PEAK ROCK ACCELERATION OF 0.2g. THE LATERAL DESIGN FORCE (0.73W) WAS BASED ON THE CALTRANS ELASTIC RESPONSE SPECTRAL CURVES FOR A SOIL PROFILE TYPE D (FIGURE B.8 ARS CURVE IN CALTRANS SEISMIC DESIGN CRITERIA). IT SHALL BE THE RESPONSIBILITY OF THE FOUNDATION ENGINEER TO DETERMINE THE FORCES WHICH ARE USED FOR FOUNDATION DESIGN, VERIFICATION OF ANCHOR BOLT SIZES, AND DESIGN OF ANCHOR BOLT EMBEDMENTS IN THE FOUNDATION. THESE FORCES ARE DETERMINED BASED ON LOCAL SITE CONDITIONS, THE FOUNDATION SYSTEM USED, AND THE BRIDGE DEAD LOAD. THE ENTIRE LONGITUDINAL SEISMIC LOAD IS ASSUMED TO ACT ONLY THROUGH THE ANCHOR BOLTS AT THE FIXED END OF THE BRIDGE ONLY.

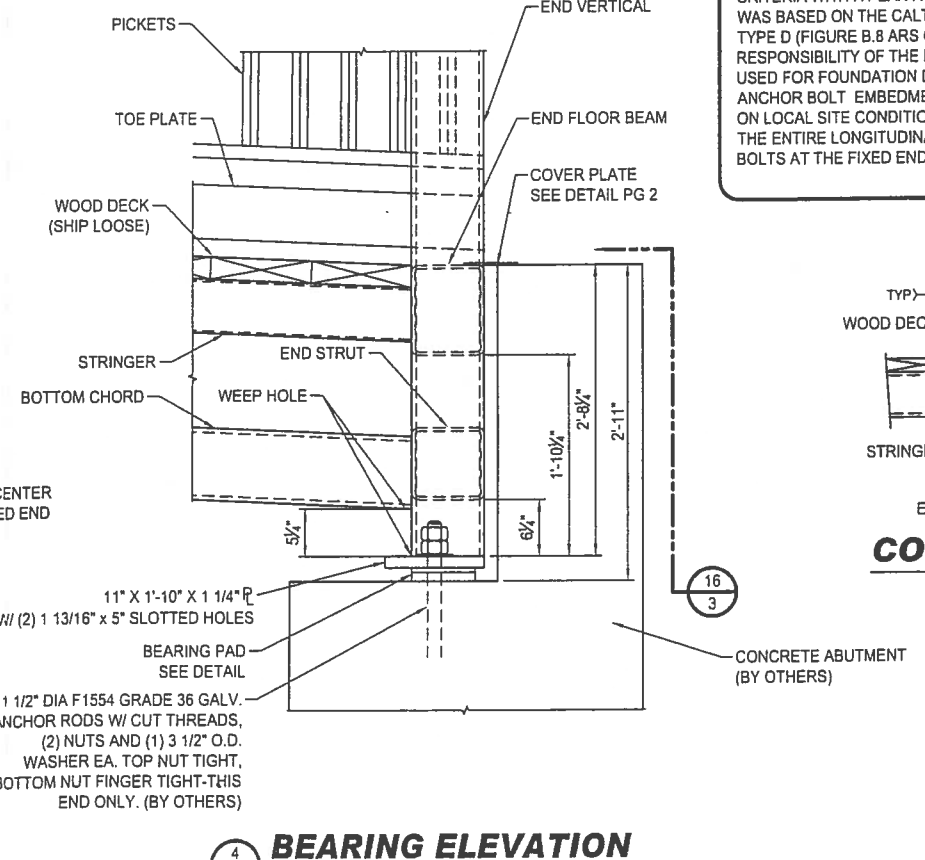


BEARING PLAN VIEW



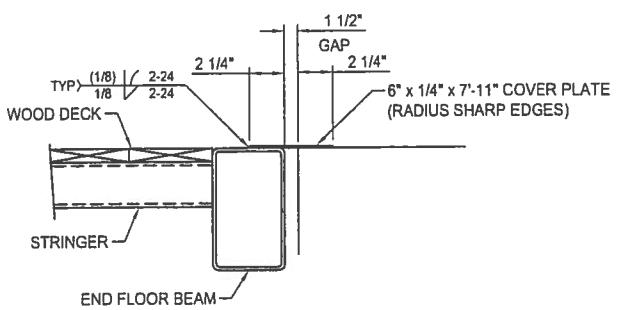
BEARING ELEVATION

FIXED END



BEARING ELEVATION

EXPANSION END



COVER PLATE DETAIL

Level	Date	Description	By

REVISIONS

QUALITY MAJOR BRIDGES AISC CERTIFICATION

Company: CONTECH BRIDGE SOLUTIONS INC
8301 State Highway 29 N Alexandria, Minnesota 56308
800-328-2047 320-852-7500 320-852-7067 FAX

CONTECH Product: CONTINENTAL BRIDGE

153'-9" x 8'-0"
TOWN CENTER COMMUNITY PARK PHASE II
PEDESTRIAN BRIDGE
SANTEE, CA

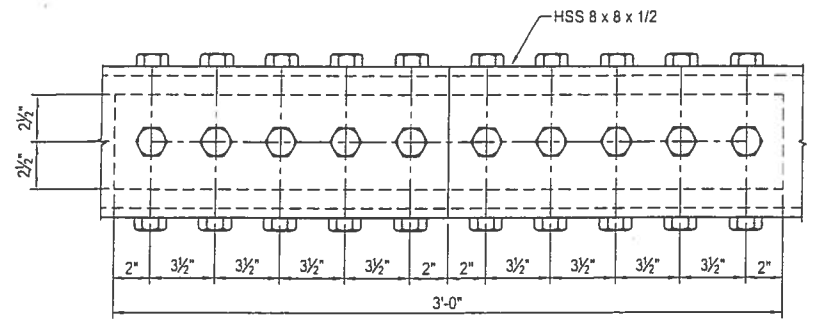
Project Status

Designed	Drawn	Date Drawn.
SJH	CMA	11/4/08
Checked	Approved	Job No.
SJH	SJH	81174A

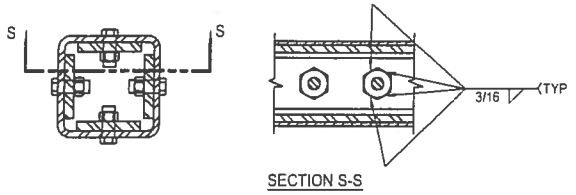
Sheet No. 2 of 4

REGISTERED PROFESSIONAL ENGINEER
STEVEN J. HERTH
No. C040130
Exp 6-30-10
STATE OF CALIFORNIA
11/13/08

J0130



TYPE ALL FACES



SECTION S-S

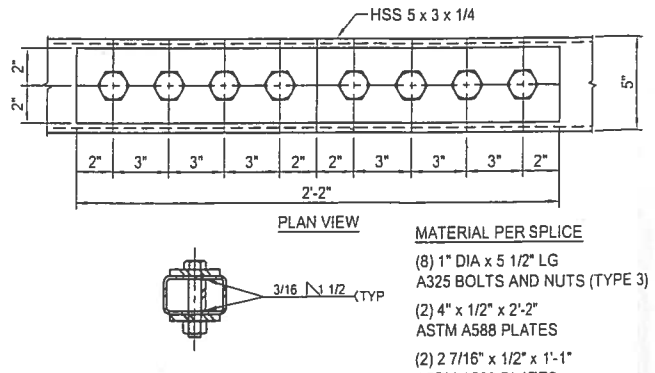
MATERIAL PER SPLICE

(40) 1" DIA x 2 3/4" LG
A325 BOLTS AND NUTS (TYPE 3)

(4) 5" x 3/4" x 3'-0"
ASTM A588 PLATES

10/1 TOP CHORD SPLICE

SHOP NOTE: SPICES ARE NOT IN CENTER POINTS OF BAY. SEE BRIDGE ELEVATION ON SHEET 1 FOR DIMENSIONS.



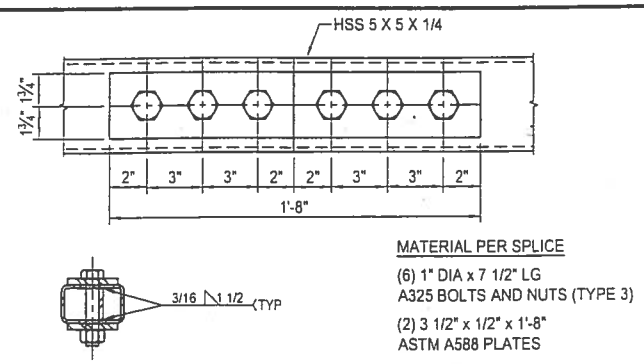
MATERIAL PER SPLICE

(8) 1" DIA x 5 1/2" LG
A325 BOLTS AND NUTS (TYPE 3)

(2) 4" x 1/2" x 2'-2"
ASTM A588 PLATES

(2) 2 7/16" x 1/2" x 1'-1"
ASTM A588 PLATES

12/1 DIAGONAL SPLICE



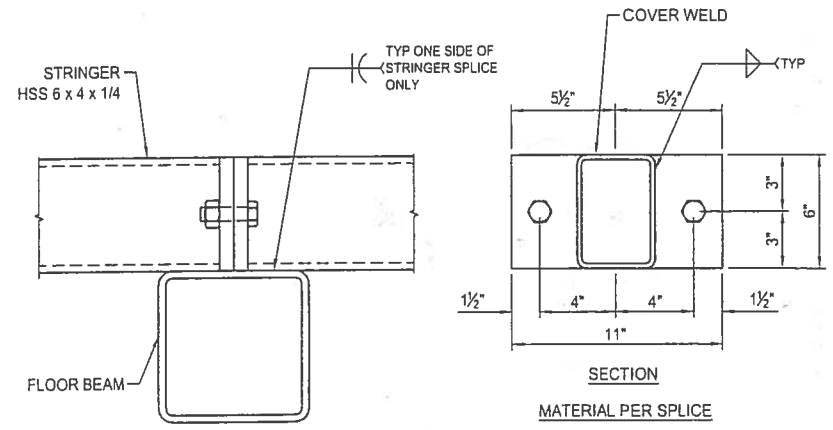
MATERIAL PER SPLICE

(6) 1" DIA x 7 1/2" LG
A325 BOLTS AND NUTS (TYPE 3)

(2) 3 1/2" x 1/2" x 1'-8"
ASTM A588 PLATES

(2) 4 7/16" x 1/2" x 10"
ASTM A588 PLATES

13/2 BRACE DIAGONAL SPLICE



SIDE ELEVATION

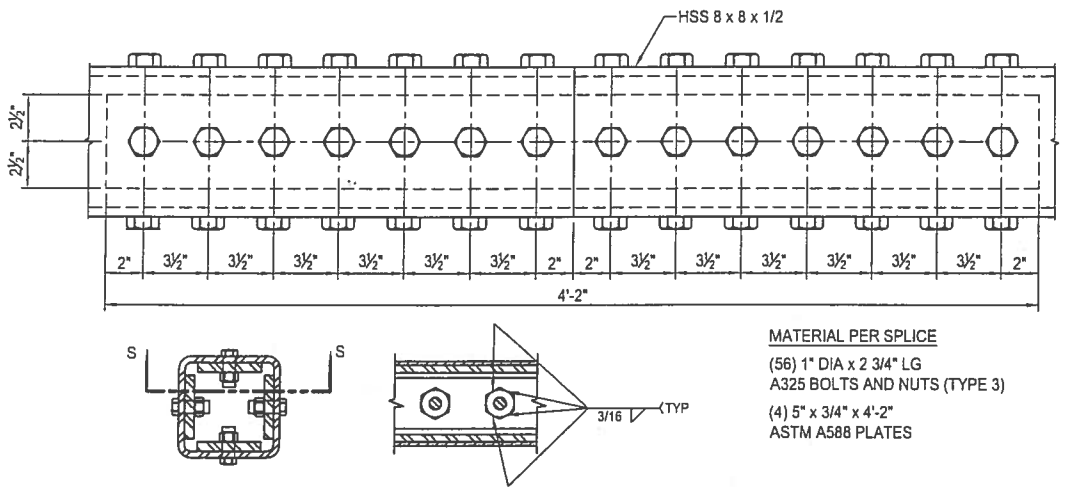
SECTION

MATERIAL PER SPLICE

(2) 3/4" DIA x 2 1/2" LG
A325 BOLTS AND NUTS (TYPE 3)

(2) 6" x 3/8 x 11"
ASTM A588 PLATES
W/ (2) 13/16" DIA HOLES

14/2 STRINGER SPLICE



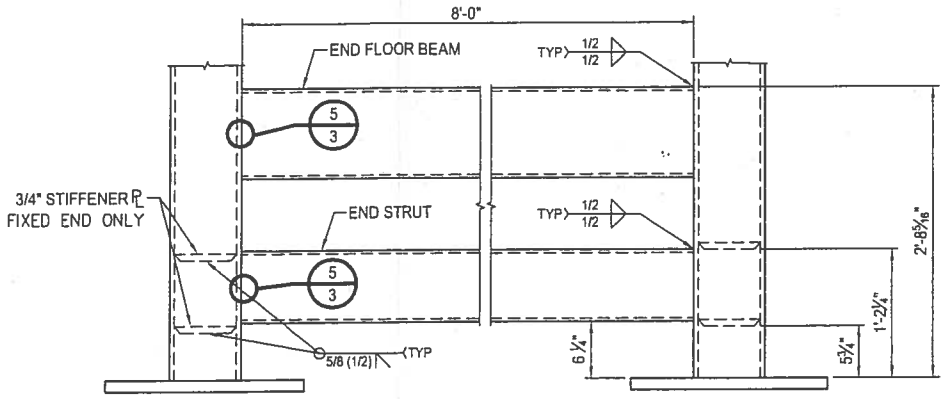
SECTION S-S

MATERIAL PER SPLICE

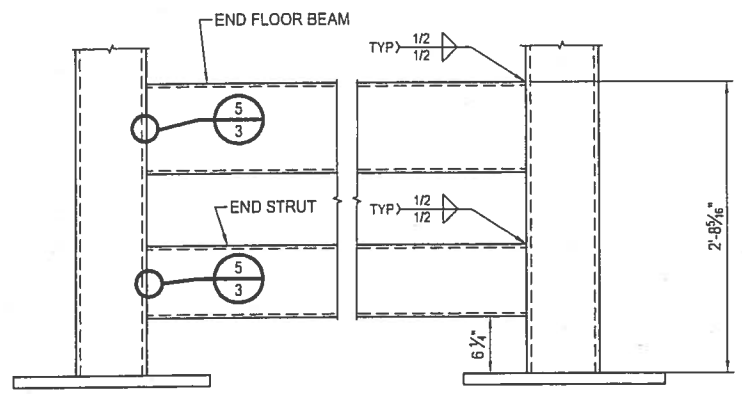
(56) 1" DIA x 2 3/4" LG
A325 BOLTS AND NUTS (TYPE 3)

(4) 5" x 3/4" x 4'-2"
ASTM A588 PLATES

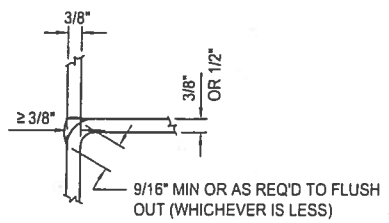
11/1 BOTTOM CHORD SPLICE



17/2 FIXED END DETAIL



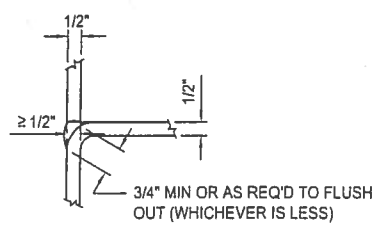
16/2 EXP END DETAIL



MATCHED EDGES OF:
1. VERTICALS TO BOTH CHORDS
2. HSS 8 x 6 x 3/8 DIAGONALS TO VERTICALS AND CHORDS
3. END FLOOR BEAM AND END STRUT TO END VERTICAL
4. FLOOR BEAMS TO VERTICALS

TO BE PARTIAL PENETRATION WELDS.

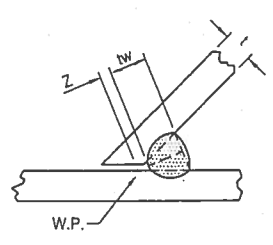
5/1,2,3 WELD DETAIL



MATCHED EDGES OF:
1. BOTH CHORDS TO END VERTICALS

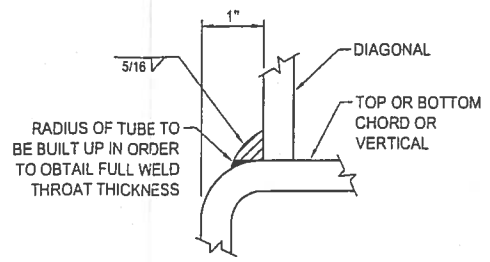
TO BE PARTIAL PENETRATION WELDS.

6/2,3 WELD DETAIL

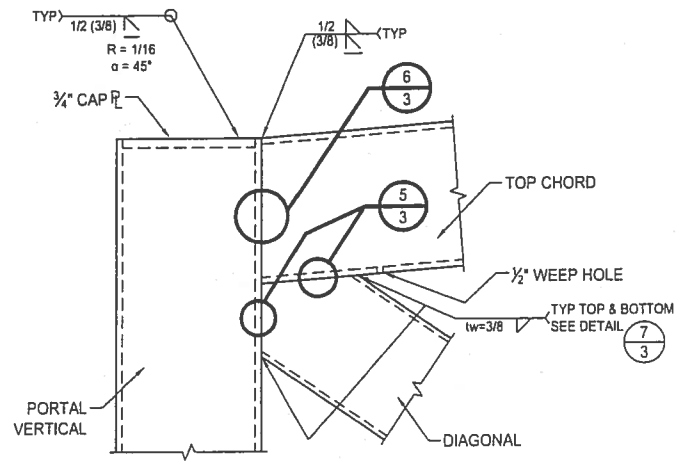


"Z" LOSS DIMENSION TO BE DETERMINED IN ACCORDANCE WITH AWS D1.1 - TABLE 2.8

7/1,3 WELD DETAIL



8/1 WELD DETAIL



9/1 WELD DETAIL

REGISTERED PROFESSIONAL ENGINEER
STEVEN J. HERTH
No. C040130
Exp 6-30-10
STATE OF CALIFORNIA
11/13/08

Level	Date	Description	By

REVISIONS

QUALITY MAJOR BRIDGES AISC CERTIFICATION

Company
CONTECH BRIDGE SOLUTIONS INC.
8301 State Highway 29 N Alexandria, Minnesota 56308
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CONTECH Product
CONTINENTAL BRIDGE

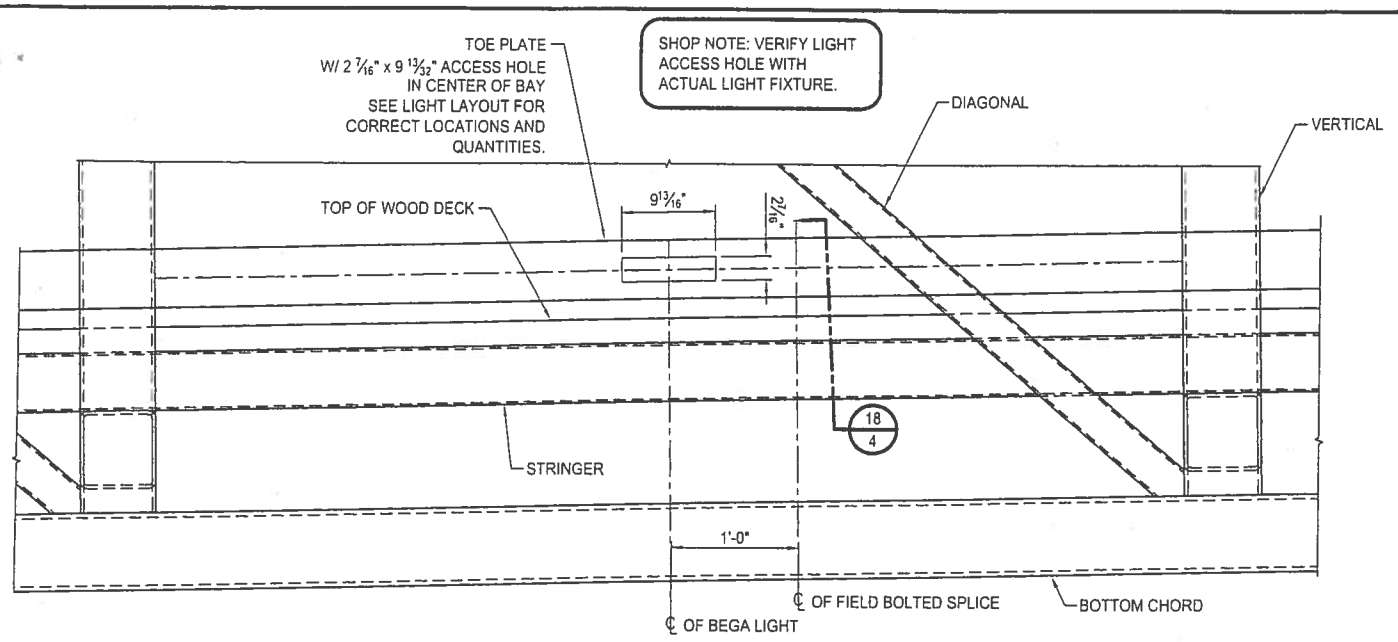
153'-9" x 8'-0"
TOWN CENTER COMMUNITY PARK PHASE II
PEDESTRIAN BRIDGE
SANTEE, CA

Project Status

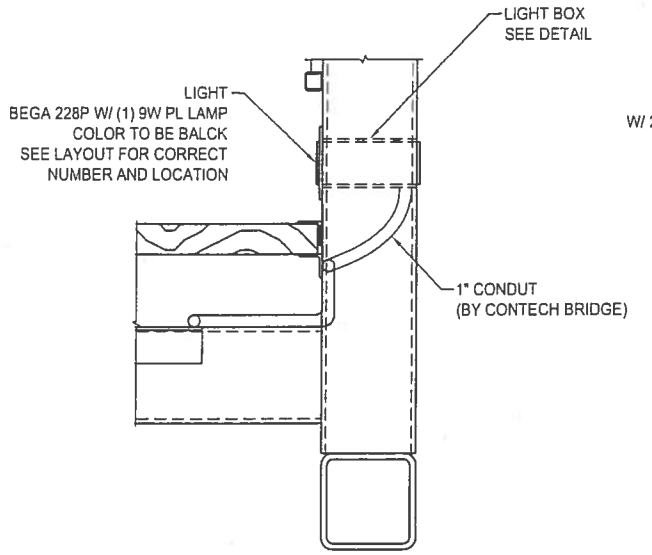
Designed	Drawn	Date Drawn
SJH	CMA	11/4/08
Checked	Approved	Job No
SJH	SJH	81174A

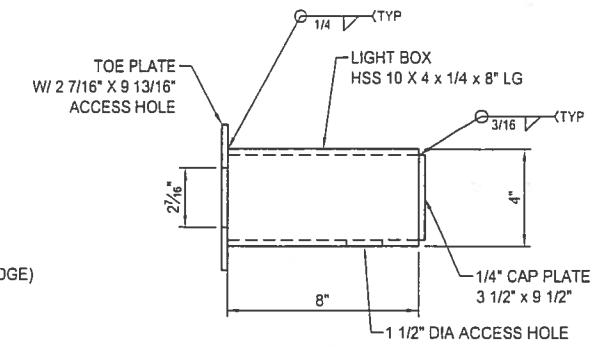
CALIFORNIA 40130

Sheet No. 3 of 4



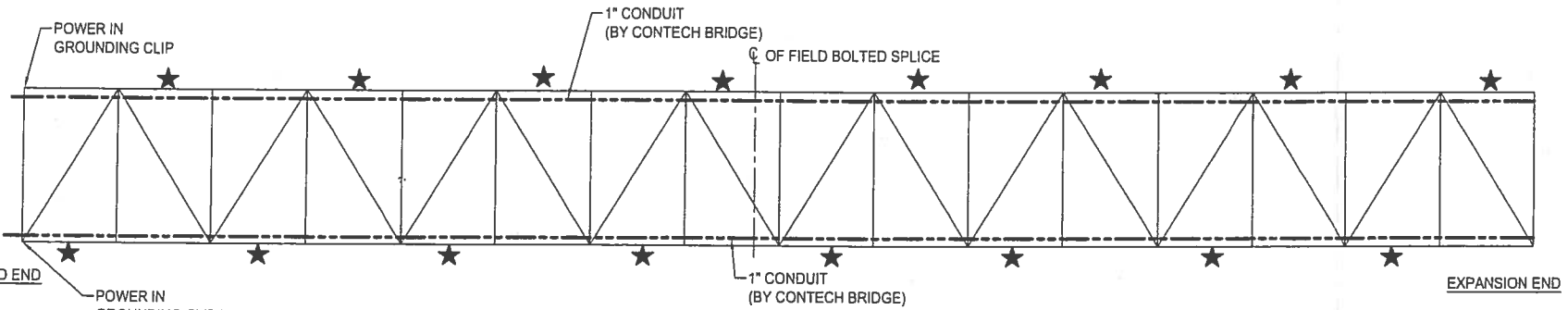
LIGHT ELEVATION





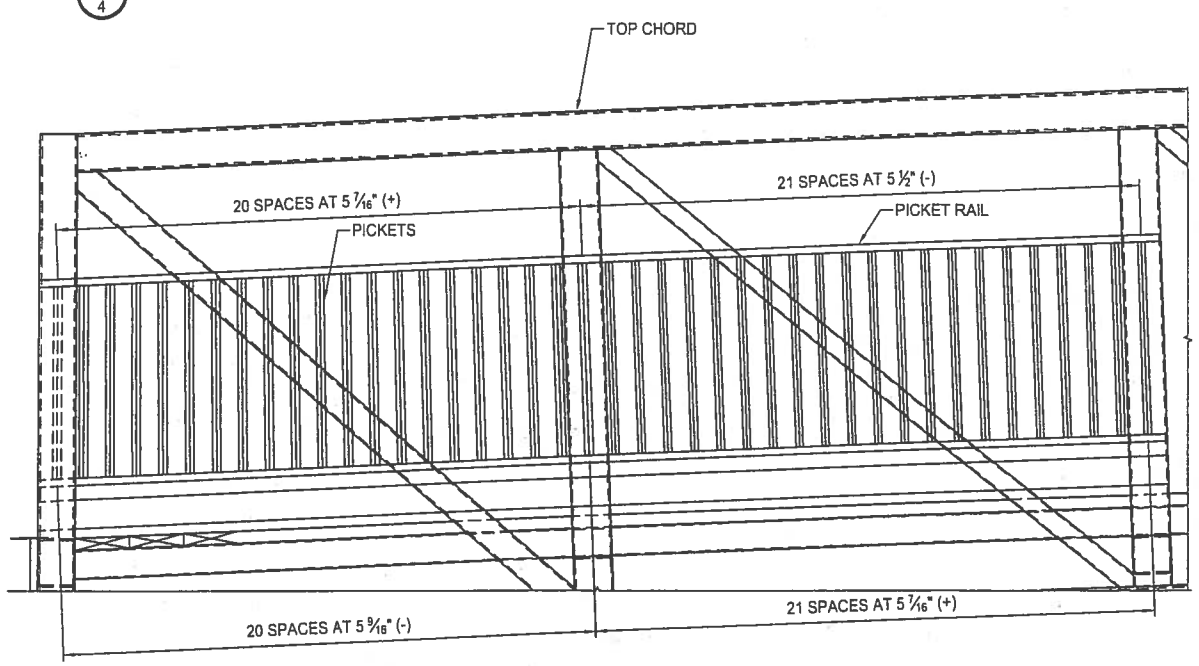
LIGHT BOX DETAIL

18/4 LIGHT SECTION

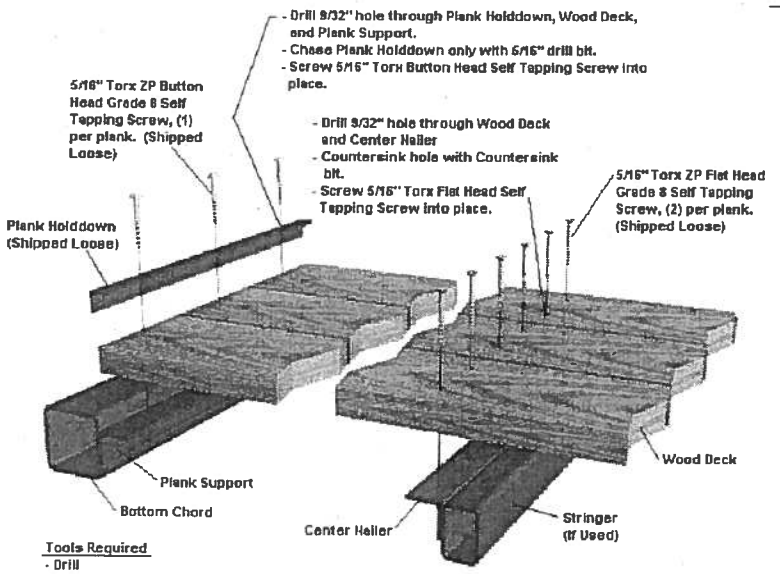


LIGHT LAYOUT

★ BEGA LIGHT LOCATIONS



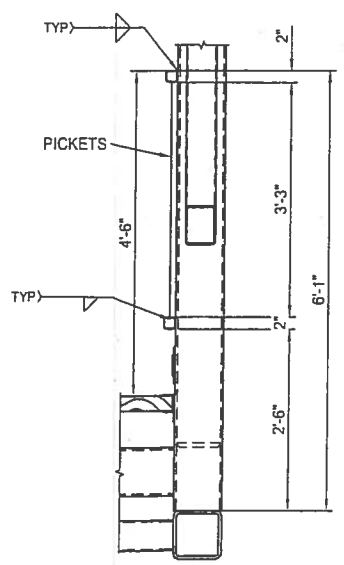
PICKET LAYOUT



Tools Required

- Drill
- 9/32" Drill Bit
- 5/16" Drill Bit
- #40 Torx Driver
- Countersink Bit 5/8" OD 82 Degree

DECK ATTACHMENT



PICKET ATTACHMENT

Level	Date	Description	By

REVISIONS

QUALITY MAJOR BRIDGES AISC CERTIFICATION

Company
CONTECH BRIDGE SOLUTIONS INC.
8301 State Highway 29 N Alexandria, Minnesota 56308
800-328-2047 320-852-7500 320-852-7067 FAX

CONTECH Product

CONTINENTAL BRIDGE

153'-9" x 8'-0"
TOWN CENTER COMMUNITY PARK PHASE II
PEDESTRIAN BRIDGE
SANTEE, CA

Project Status

Designed	Drawn	Date Drawn
SJH	CMA	11/4/08
Checked	Approved	Job No.
SJH	SJH	81174A

REGISTERED PROFESSIONAL ENGINEER
STEVEN J. HERTH
No. C040130
Exp. 6-30-10
CIVIL
STATE OF CALIFORNIA
11/13/08
CALIFORNIA 40130

Sheet No. 4 of 4